NASA Glenn Research Center Glenn Safety Manual BMS Document: GLM-QSA-1700.1

NASA Approving Authority: Ken O'Connor

Effective Date: 12/06

# **Chapter 29 – Safety Barricades**

#### **29.1 Scope**

This chapter addresses the policies and procedures to be followed for all barricading within the boundaries of the Glenn Research Center (GRC). It includes what types of barricades are used and who the responsible parties are for each type.

## 29.2 Applicability

The provisions in this chapter are applicable to **ALL** workers, including contractor personnel, when they are within the boundaries of the GRC. The provisions also apply to the interior and exterior of GRC facilities where safe passage through, and emergency egress from, occupied areas must be maintained.

## **29.3 Policy**

It is the intent of the GRC to protect all workers and visitors at the GRC through the use of engineering controls in hazardous areas to the extent of the severity of the hazard. These engineering controls include barricades of temporary and permanent utility, (with appropriate signage when applicable), and shall be used to prevent access to these hazardous areas. Other barricades necessary in non-hazardous areas for the day-to-day operations of the center shall also be utilized.

#### **29.4 Definitions and Procedures**

The following definitions and procedures shall be adhered to when barricading is need on the Center.

There are 3 specific types of barricading. They are as follows:

**Emergency Barricading** - Secondary to accidents, incidents, and mishaps. This barricading will be done exclusively by the Safety Branch or by a designated contractor under the guidance and instruction of the Safety Branch, to control a specific area(s) of hazardous nature, or to prevent employees from entering an unsafe/hazardous area. All signs and placards at the effected area(s) are to be observed at all times.

**Research or Construction Barricading** - This is barricading needed for the facilitation of temporary or permanent areas for research and/or construction such as mobile rigs, materials, and/or supplies, or other such units needed to temporarily or permanently occupy the space intended. The procedure is as follows:

1. The requester needing the barricade will fill out a Barricade Request Form, NASA C-136. This can be obtained by calling Safety Branch at 3-3016 or logging onto the Safety Branch Website. The requester is to define exactly what area(s) are to be blocked off. A map of the area to be blocked off should be attached to the form.

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2. The form needs to be signed by the requester and then reviewed and approved by the Safety Branch. The Safety Branch approval is required due to possible safety concerns that could develop regarding the proposed location of the barricade.

NOTE: The Barricade Request Form C-136 and all attachments should be submitted to Safety Branch no later than one week prior to the date the barricade needs to be erected. The request should be sent to Mail Stop 14-4, Attn. Lou Galmarini (3-3696)

- 3. The Safety Branch will review the request and contact the requester when the review is complete. Once the approvals are secured, the requester will obtain the appropriate flagging, tape, cones, or other materials needed from the stock room and are responsible for their placement. Please use the appropriate barricade materials per this Chapter of the Glenn Safety Manual including signs, (if needed), for easy identification of the area.
- 4. Outside contractors shall be responsible for all safety barricading needed for the scope of their construction project.
- 5. Resident contractors shall follow instructions 1, 2, and 3.

**Social and Event Barricading** - This refers to barricading used for tours, parties, conferences, parking details, special events, etc. The procedure for such barricading are the same as Research and Construction Barricading and should be followed in the same manner. However, after approval of the Safety Branch, the designated contractor will be contacted by Safety Branch to complete the barricade detail for the customer. The customer will receive a confirmation by the contractor that he is in receipt of said request. (The current designated contractor is Call Henry, Inc.). Any fees incurred from the implementation and set up and break down of the barricade detail by the designated contractor will be charged to the requester's directorate.

**Special Conditions** - At the discretion of Safety Branch, after approval of the requesters' NASA C-136 work order, barricading for any other special needs or requests may be facilitated by the designated contractor. The requestors' directorate will be responsible for any fees incurred for the barricade set-up and break down.

**Barricading Materials** - The Center uses appropriate colored tape, flagging, orange pylons (cones), and/or other approved materials to accomplish designation of hazardous and reserved areas.

### **Definitions and Proper Usage of Colored Tape**

**Yellow** - means caution, (follow instructions on posted signs).

**Red (or Red and White)** - means DANGER, KEEP OUT and is used as part of the Safety Permit in labs, cells etc. when applicable.

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White - represents all other meanings, instructions (Traffic awareness).

**Pylons** - Orange pylons can be used to designate parking spaces, which are to be reserved or to assist in facilitating a barricading detail.

**Signs** - Consistent with the Centers' absolute commitment to safety, and to alerting personnel of any potential danger to their health and well being, appropriate signs may be needed to accompany the barricade detail when instructed by the Safety Branch. The Safety Branch will assist in the development and proper wording of these signs. The signs could include the warning words DANGER or CAUTION and the specific hazard, the means of protecting oneself from the hazard, and the consequences of not following the instructions of the sign.

#### **General Directions**

Barricade request forms for securing a barricade plan shall include the locations of and use of all barricades, the color of tape, flagging, pylons, or other approved materials that will be used to complete the procedure, and a map illustrating the detail as to how and where it will be erected. For assistance in this, the Safety Branch can be contacted at 3-3016. The approved barricade request form must be submitted to Safety Branch, who will then review and approve the work request on the basis of the barricade plan. If there are any questions, they should be directed to the Safety Branch at 3-3016 or 3-2088 after hours.

When the customer is responsible for erecting the barricade, all flagging, tape, cones, and other materials should be properly secured, taking into account possible inclement weather, wind resistance, and other possible abnormalities, which could breach the security of the barricade.

# All non-emergency barricading must be removed by the requester no later than 24 hours after use.

For personal safety, all barricades must not be crossed. If there is a need to access an area, which is barricaded, obtaining permission from the building manager or area supervisor is necessary. If neither of these can be reached, a representative of Safety Branch can be reached through the EH&S Help Line at 3-8848 or at Emergency Dispatch at 3-2088 after hours.

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If someone is observed crossing a barricade, please take the following actions:

- 1. Inform the person of the reason for the barricade, and ask that the person not cross the barricade.
- 2. Report the incident to the EH&S Help Line at 3-8848, or 3-2088 along with the person's name, (if known), so that the person can be reminded of the barricade guidelines.
- 3. If immediate action appears necessary to avoid imminent danger, contact the Glenn Emergency Dispatch Office by dialing 9-1-1.

Any questions regarding any of the procedures pertaining to this chapter can be forwarded to Safety Branch at 3-3016.